Fourth Grade Math

Course Overview

Fourth grade Math students sharpen their computational and problem-solving skills while applying mathematical concepts to real-world problems. Students will:

- Continue to develop computational skills using larger numbers up to millions
- Estimate sums and differences before finding exact solutions
- Achieve rapid fluency with basic number facts
- Through a proprietary, research-based series of lessons, develop strategies for solving word problems that progress from simple addition problems to problems with complex data
- Use geometry to determine perimeter, volume, and area in both English and metric units
- Develop research-based intuitive understanding of fractions together with practical computational skills
- Expand understanding of probability and its link to fractions

Course Outline

Place Value
- Thousands
- Millions and Greater Numbers
- Place Value
- Comparing and Ordering Whole Numbers
- Number Sense: Using a Number Line
- Making Change
- Comparing and Ordering Money
- Rounding
- Working with Money

Addition and Subtraction Concepts
- Addition Properties and Addition Strategies
- Subtraction Concepts
- Addition and Subtraction Sentences
- Mental Math
- Estimating Sums and Differences
- Adding and Subtracting Money
- Checking Addition and Subtraction
- Addition and Subtraction Applications

Addition and Subtraction
- Front-End Estimation
- Adding with Regrouping
- Three- and Four-Digit Addition
- Three or More Addends
- Subtracting with Regrouping
- Subtraction: Regrouping Twice
- Three- and Four-Digit Subtraction
- Zeros in Subtraction
- Larger Sums and Differences

Multiplying by One and Two Digits
- Multiplication Properties
- Missing Factors
- Multiplication Models
- Special Factors

Multiplying by One-Digit Numbers
- Products: Front-End Estimation
- Multiplying with Regrouping
- Multiplying Three-Digit Numbers
- Multiplying Money
- Multiplying Four-Digit Numbers
- Patterns in Multiplication
- Estimating Products
- Multiplying by Two-Digit Numbers
- More Multiplying by Two-Digit Numbers
- Multiplying with Three-Digit Numbers

Dividing by One Digit
- Division Concepts
- Missing Numbers in Division
- Number Patterns
- Estimating in Division
- One-Digit Quotients
- Divisibility
- Two-Digit Quotients
- More Two-Digit Quotients
- Three-Digit Quotients
- More Difficult Quotients
- Zeros in the Quotient
- Larger Numbers in Division
- Dividing Money
- Order of Operations
- Finding Averages

Dividing by Two Digits
- Division Patterns
- Divisors: Multiples of Ten
- Estimating Quotients
- Two-Digit Dividends
- Three-Digit Dividends
- Trial Quotients
- Greater Quotients
- Teens as Divisors
Fourth Grade Math

• Four-Digit Dividends
• Zero in the Quotient and Greater Dividends

Measurement
• Measuring with Inches
• Renaming Units of Length
• Computing Customary Units
• Customary Units of Capacity
• Customary Units of Weight
• Measuring and Working with Metric Units
• Metric Units of Capacity
• Metric Units of Mass and Weight
• Temperature
• Time and Elapsed Time

Statistics and Probability
• Graphing Sense
• Making Pictographs and Bar Graphs
• Line Graphs
• Line Graphs II
• Circle Graphs
• Combinations
• Predicting Probability
• Events and Outcomes

Fractions
• Writing Fractions
• Estimating Fractions
• Equivalent Fractions
• Writing Equivalent Fractions
• Factors
• Fractions: Lowest Terms
• Mixed Numbers
• Comparing Fractions
• Ordering Fractions

Fractions: Addition and Subtraction
• Adding: Like Denominators
• Subtracting: Like Denominators
• Improper Fractions
• Estimating with Mixed Numbers
• Add and Subtract Mixed Numbers
• Multiples
• Adding: Unlike Denominators
• Subtracting: Unlike Denominators
• Computing Probability
• Finding Parts of Numbers

Decimals
• Tenths and Hundredths
• Decimals Greater than 1.0

• Decimal Place Value
• Comparing Decimals
• Ordering Decimals
• Rounding Decimals
• Adding Decimals
• Subtracting Decimals
• Estimation with Decimals
• Dividing with Money
• Problem-Solving Strategy: Multistep Problem

Geometry
• Points, Lines, and Line Segments
• Rays and Angles
• Parallel and Perpendicular Lines
• Circles
• Polygons
• Quadrilaterals
• Triangles
• Similar Figures
• Slides, Flips, and Turns
• Coordinate Geometry

Perimeter, Area, and Volume
• Using Perimeter Formulas
• Area
• Using the Area Formulas
• Space Figures
• Polygons
• Spatial Relationships
• Volume

Moving On: Algebra
• Number Sentences
• Finding Missing Numbers
• Functions
• Missing Symbols
• Number Line

Standard Curriculum Items
Math Textbook, Grade 4
Base-10 Blocks

NOTE: List subject to change.